

Title (en)  
PHOTOACTIVATABLE OXYGEN-EVOLVING COMPOSITIONS AND METHODS FOR TEETH WHITENING

Title (de)  
LICHTAKTIVIERBARE SAUERSTOFFENTWICKLUNGSKATALYSATOREN UND VERFAHREN ZUR ZAHNAUFHELLUNG

Title (fr)  
COMPOSITIONS PHOTOACTIVABLES DÉGAGEANT DE L'OXYGÈNE ET PROCÉDÉS DE BLANCHIMENT DES DENTS

Publication  
**EP 3202391 A1 20170809 (EN)**

Application  
**EP 16200524 A 20110429**

Priority  
• US 77110510 A 20100430  
• EP 11774256 A 20110429

Abstract (en)  
Disclosed herein are compositions that can rapidly evolve oxygen and/or activated oxygen generally including an oxidizing agent (e.g., a peroxide) and an activating agent that has an emission wavelength between about 400 nm and about 570 nm, namely Erythrosine B and at least one of an accelerating agent and a stabilizing agent. Methods of employing these compositions to whiten teeth, and methods of making these compositions and kits that include some or part of the composition ingredients, are also described.

IPC 8 full level  
**A61K 8/49** (2006.01); **A61K 6/00** (2006.01); **A61K 8/19** (2006.01); **A61K 8/22** (2006.01); **A61K 8/36** (2006.01); **A61K 8/73** (2006.01); **A61K 8/81** (2006.01); **A61N 5/06** (2006.01); **A61Q 11/00** (2006.01)

CPC (source: CN EP US)  
**A61K 6/66** (2020.01 - EP US); **A61K 8/19** (2013.01 - US); **A61K 8/22** (2013.01 - CN EP US); **A61K 8/36** (2013.01 - CN EP US); **A61K 8/498** (2013.01 - CN EP US); **A61K 8/732** (2013.01 - US); **A61K 8/81** (2013.01 - US); **A61N 5/062** (2013.01 - US); **A61Q 11/00** (2013.01 - CN EP US); **A61K 2800/43** (2013.01 - US); **A61K 2800/434** (2013.01 - CN EP US); **A61K 2800/592** (2013.01 - CN EP US)

Citation (applicant)  
• US 6343933 B1 20020205 - MONTGOMERY ROBERT ERIC [US], et al  
• US 6485709 B2 20021126 - BANERJEE ABHIJIT [US], et al  
• US 6030222 A 20000229 - TARVER JEANNA G [US]  
• WO 0222097 A1 20020321 - HIGH TECH LASER [BE], et al

Citation (search report)  
• [XY] WO 2007080453 A2 20070719 - PICCHIO INTERNAT INC [CA], et al  
• [X] US 3595798 A 19710727 - SMITH TOM, et al  
• [XY] WO 2007087259 A2 20070802 - PROCTER & GAMBLE [US], et al  
• [Y] US 3309274 A 19670314 - HERBERT BRILLIANT  
• [X] DATABASE GNPD [online] MINTEL; May 2009 (2009-05-01), "Effervescent Tablets", XP002769876, Database accession no. 1089966  
• [X] DATABASE GNPD [online] MINTEL; May 2007 (2007-05-01), "Active Plus Deep Cleaning Tablets", XP002769877, Database accession no. 707777  
• [Y] NAN CHEN G ET AL: "Study of chemiluminescent characteristics of some xanthone dyes", ANALYTICA CHIMICA ACTA, ELSEVIER, AMSTERDAM, NL, vol. 292, no. 1-2, 30 June 1994 (1994-06-30), pages 159 - 167, XP026762884, ISSN: 0003-2670, [retrieved on 19940630], DOI: 10.1016/0003-2670(94)00037-9

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)  
**US 2010266989 A1 20101021**; AU 2011245008 A1 20121206; BR 112012027538 A2 20170808; BR 112012027538 B1 20180403; CA 2797867 A1 20111103; CA 2797867 C 20170815; CN 102939072 A 20130220; CN 107049818 A 20170818; EA 030336 B1 20180731; EA 201291068 A1 20130530; EP 2563323 A1 20130306; EP 2563323 A4 20151021; EP 3202391 A1 20170809; IL 222526 A0 20121231; JP 2013525380 A 20130620; JP 2016065077 A 20160428; JP 2018065844 A 20180426; JP 6061342 B2 20170118; JP 6730248 B2 20200729; KR 101869109 B1 20180619; KR 20130108992 A 20131007; MX 2012012481 A 20130307; MX 343075 B 20161024; NZ 603601 A 20150130; NZ 631120 A 20151224; SG 10201503416U A 20150629; SG 184945 A1 20121129; US 2013122467 A1 20130516; US 2016296444 A1 20161013; US 9345648 B2 20160524; WO 2011134087 A1 20111103; ZA 201208990 B 20140226

DOCDB simple family (application)  
**US 77110510 A 20100430**; AU 2011245008 A 20110429; BR 112012027538 A 20110429; CA 2011050261 W 20110429; CA 2797867 A 20110429; CN 201180030010 A 20110429; CN 201610944578 A 20110429; EA 201291068 A 20110429; EP 11774256 A 20110429; EP 16200524 A 20110429; IL 22252612 A 20121018; JP 2013506427 A 20110429; JP 2015222108 A 20151112; JP 2017230534 A 20171130; KR 20127031383 A 20110429; MX 2012012481 A 20110429; NZ 60360111 A 20110429; NZ 63112011 A 20110429; SG 10201503416U A 20110429; SG 2012077665 A 20110429; US 201113643672 A 20110429; US 201615133536 A 20160420; ZA 201208990 A 20121128